

Appendix 1: Search Strategies

SECTION 1: INITIAL PRESENTATION OF FN

Risk stratification and evaluation

Example based on Ovid MEDLINE and was then adapted for MEDLINE In-Process & Other Non-Indexed Citations, EMBASE, CINAHL and Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS).

- 1 Neutropenia/
- 2 (neutropenia or neutropenic).ti,ab.
- 3 1 or 2
- 4 Fever/
- 5 (fever\$ or febril\$).ti,ab.
- 6 4 or 5
- 7 3 and 6
- 8 adolescent/ or child/ or child, preschool/ or infant/ or infant, newborn/ or Puberty/
- 9 schools/ or schools, nursery/
- 10 (infan\$ or newborn\$ or new born\$ or baby\$ or babies or neonat\$ or neonat\$ or child\$ or schoolchild\$ or kid or kids or toddler\$ or adoles\$ or teen\$ or boy\$ or girl\$ or minor\$ or underage\$ or under age\$ or juvenil\$ or youth\$ or kindergar\$ or nursery or puber\$ or prepuber\$ or pre puber\$ or pubescen\$ or prepubescen\$ or pre pubescen\$ or pediatric\$ or paediatric\$ or peadiatric\$ or school or schools or preschool\$ or pre school\$ or schoolage\$).ti,ab.
- 11 8 or 9 or 10
- 12 exp Neoplasms/
- 13 (cancer\$ or neoplas\$ or oncolog\$ or malignan\$ or tumor\$ or sarcoma\$ or leukaemi\$ or leukemia\$ or chemotherap\$).ti,ab.
- 14 12 or 13
- 15 11 and 14
- 16 7 and 15
- 17 (predict\$ or clinical\$ or outcome\$ or risk\$).mp.
- 18 16 and 17

Initial management of FN including drug choice, route of administration, and location of treatment

Ovid MEDLINE(R)

- 1 agranulocytosis/ or neutropenia/ or leukopenia/
- 2 fever/ or "fever of unknown origin"/
- 3 1 and 2
- 4 (febrile adj5 (neutropen* or granulocyt* or agranulocyto* or leukocyt*??ni*)).ti,ab.
- 5 3 or 4
- 6 ("clinical trial, all" or clinical trial).pt. or clinical trials as topic/
- 7 clinical trial, phase i.pt. or clinical trials, phase i as topic/
- 8 clinical trial, phase ii.pt. or clinical trials, phase ii as topic/
- 9 clinical trial, phase iii.pt. or clinical trials, phase iii as topic/
- 10 clinical trial, phase iv.pt. or clinical trials, phase iv as topic/
- 11 controlled clinical trial.pt. or controlled clinical trials as topic/
- 12 meta-analysis.pt. or meta-analysis as topic/

- 13 multicenter study.pt. or multicenter studies as topic/
- 14 randomized controlled trial.pt. or randomized controlled trials as topic/
- 15 or/6-14
- 16 cohort studies/ or longitudinal studies/ or follow-up studies/ or prospective studies/
- 17 case-control studies/ or retrospective studies/ or cross-sectional studies/
- 18 prognosis/ or disease-free survival/ or medical futility/ or pregnancy outcome/ or treatment outcome/ or treatment failure/
- 19 disease progression/
- 20 morbidity/ or incidence/ or prevalence/
- 21 mortality/ or cause of death/ or fatal outcome/ or hospital mortality/ or infant mortality/ or maternal mortality/ or survival rate/
- 22 survival analysis/ or disease-free survival/
- 23 natural histor???.tw.
- 24 predictive value of tests/
- 25 or/16-24
- 26 15 or 25
- 27 5 and 26
- 28 limit 27 to yr="1980 -Current"
- 29 limit 28 to english language

EMBASE

- 1 leukopenia/ or agranulocytosis/ or neutropenia/
- 2 pyrexia idiopathica/ or fever/ or (fever* adj5 unknown adj5 origin*).ti,ab.
- 3 1 and 2
- 4 febrile neutropenia/
- 5 3 or 4
- 6 ct.fs. or clinical trial/ or phase 1 clinical trial/ or phase 2 clinical trial/ or phase 3 clinical trial/ or phase 4 clinical trial/ or controlled clinical trial/ or randomized controlled trial/ or multicenter study/ or meta analysis/ or double blind procedure/ or single blind procedure/ or triple blind procedure/ or (random* or rct or rcts or ((singl: or doubl: or tripl: or trebl:)) and (mask: or blind:)))mp.
- 7 5 and 6
- 8 cohort analysis/ or longitudinal study/ or prospective study/ or case control study/ or hospital based case control study/ or population based case control study/ or retrospective study/ or cancer recurrence/ or cancer regression/ or cancer relapse/ or disease duration/ or disease exacerbation/ or prognosis/ or recurrent disease/ or reinfection/ or relapse/ or remission/ or tumor recurrence/ or tumor regression/ or survival/ or cancer survival/ or disease free survival/ or overall survival/ or survival rate/ or survival time/ or incidence/ or cancer incidence/ or familial incidence/ or morbidity/ or maternal morbidity/ or perinatal morbidity/ or newborn morbidity/ or mortality/ or cancer mortality/ or childhood mortality/ or embryo mortality/ or fetus mortality/ or infant mortality/ or maternal mortality/ or prenatal mortality/ or surgical mortality/ or perinatal mortality/ or newborn mortality/ or death/ or "cause of death"/ or dying/ or heart death/ or sudden death/ or child death/ or newborn death/ or prevalence/ or treatment outcome/ or disease free interval/ or treatment failure/ or drug treatment failure/ or (natural adj2 history).mp. (2419301)
- 9 5 and 8
- 10 7 or 9
- 11 4 and 6
- 12 4 and 8
- 13 11 or 12
- 14 limit 13 to english language

Cochrane Central Register of Controlled Trials

- 1 agranulocytosis/ or neutropenia/ or leukopenia/
- 2 fever/ or "fever of unknown origin"/
- 3 1 and 2
- 4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab.
- 5 3 or 4 (1020)
- 6 limit 5 to yr="1980 -Current

SECTION 2: ONGOING MANAGEMENT OF FN EXCLUDING EMPIRIC ANTIFUNGAL THERAPY

Ovid MEDLINE

- 1 agranulocytosis/ or neutropenia/ or leukopenia/
- 2 fever/ or "fever of unknown origin"/
- 3 1 and 2
- 4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab.
- 5 3 or 4
- 6 exp Anti-Infective Agents/
- 7 5 and 6
- 8 time/ or time factors/ or (discontinuu* or duration* or stop or stops or stopped or stopping or cease* or cessation* or continue* or continuation).mp.
- 9 7 and 8

EMBASE

- 1 agranulocytosis/ or neutropenia/ or leukopenia/
- 2 fever/ or "fever of unknown origin"/
- 3 1 and 2
- 4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab.
- 5 3 or 4
- 6 exp Anti-Infective Agents/
- 7 5 and 6
- 8 time/ or time factors/ or (discontinuu* or duration* or stop or stops or stopped or stopping or cease* or cessation* or continue* or continuation).mp.
- 9 7 and 8
- 10 exp antiinfective agent/ or drug therapy/ or antibiotic therapy/ or exp antimicrobial therapy/
- 11 drug withdrawal/ or time/ or (discontinuu* or duration* or stop or stops or stopped or stopping or cease* or cessation* or continue* or continuation).mp.
- 12 *leukopenia/ or *agranulocytosis/ or *neutropenia/
- 13 *pyrexia idiopathica/ or fever/ or (fever* adj5 unknown adj5 origin*).ti,ab.
- 14 12 and 13
- 15 *febrile neutropenia/ or ((fever* or febrile) adj5 neutropen*).ti,ab.
- 16 14 or 15
- 17 10 and 16
- 18 11 and 17

Cochrane Central Register of Controlled Trials

- 1 agranulocytosis/ or neutropenia/ or leukopenia/
- 2 fever/ or "fever of unknown origin"/

- 3 1 and 2
- 4 (febrile adj5 (neutropen* or granulocytopen* or agranulocytopen* or leukocytopen*?ni)).ti,ab.
- 5 3 or 4
- 6 exp Anti-Infective Agents/
- 7 5 and 6
- 8 time/ or time factors/ or (discontinuation* or duration* or stop or stops or stopped or stopping or cease* or cessation* or continuation* or continuation).mp.
- 9 7 and 8
- 10 exp antiinfective agent/ or drug therapy/ or antibiotic therapy/ or exp antimicrobial therapy/
- 11 drug withdrawal/ or time/ or (discontinuation* or duration* or stop or stops or stopped or stopping or cease* or cessation* or continuation* or continuation).mp.
- 12 *leukopenia/ or *agranulocytosis/ or *neutropenia/
- 13 *pyrexia idiopathica/ or fever/ or (fever* adj5 unknown adj5 origin*).ti,ab.
- 14 12 and 13
- 15 *febrile neutropenia/ or ((fever* or febrile) adj5 neutropen*).ti,ab.
- 16 14 or 15
- 17 10 and 16
- 18 11 and 17
- 19 5 or 16
- 20 8 or 11
- 21 6 or 10
- 22 19 and 21
- 23 20 and 22

SECTION 3: EMPIRIC ANTIFUNGAL TREATMENT

PUBMED

- 1 Febrile OR fever
- 2 Neutropen* OR granulocytopen* (limited to children < 18 yrs)
- 3 fung* OR mycos*
- 4 1 AND 2 AND 3

- 5 risk OR incidence
- 6 4 and 5

- 7 diagnos*
- 8 radiograph* OR imaging OR "computerized tomography" OR CT OR "X ray" OR "magnetic resonance imaging" OR MRI
- 9 7 AND 8
- 10 4 AND 8

- 11 BAL OR bronchoalveolar lavage OR biopsy
- 12 4 AND 11

- 13 biomarker; antigen OR galactomannan OR platelia OR β -D-glucan
- 14 4 AND 13

- 15 empiric* therapy OR pre-emptive therapy OR therapy OR treatment
- 16 fung* OR mycos

- 17 15 AND 16
- 18 Limit 17 to children < 18 yrs